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IPRM - Floor 4	-	MCCORMICK, GABRIELLE A		
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			3629	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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	Application No.	Applicant(s)	
	10/773,046	HOUSTON, PHILIP R.	
Office Action Summary	Examiner	Art Unit	
	GABRIELLE MCCORMICK	3629	
The MAILING DATE of this communication appeariod for Reply	ppears on the cover sheet with	the correspondence address	
A SHORTENED STATUTORY PERIOD FOR REP WHICHEVER IS LONGER, FROM THE MAILING I - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailling date of this communication. - If NO period for reply is specified above, the maximum statutory perior Failure to reply within the set or extended period for reply will, by statu. Any reply received by the Office later than three months after the mail earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICA I.136(a). In no event, however, may a reply d will apply and will expire SIX (6) MONTHS ate, cause the application to become ABANI	TION. be timely filed from the mailing date of this communication. DONED (35 U.S.C. § 133).	
Status			
1) ■ Responsive to communication(s) filed on <u>25</u> 2a) ■ This action is FINAL . 2b) ■ The Since this application is in condition for allow closed in accordance with the practice under	nis action is non-final. rance except for formal matters	•	
Disposition of Claims			
4) ☑ Claim(s) 1-7,9-15,18 and 19 is/are pending in 4a) Of the above claim(s) is/are withdr 5) ☐ Claim(s) is/are allowed. 6) ☑ Claim(s) 1-7,9-15,18 and 19 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and	rawn from consideration.		
Application Papers			
9) The specification is objected to by the Examir 10) The drawing(s) filed on is/are: a) acceptable and applicant may not request that any objection to the Replacement drawing sheet(s) including the correction of the oath or declaration is objected to by the Examiration is objected to by the Examiration is objected.	ccepted or b) objected to by e drawing(s) be held in abeyance. ection is required if the drawing(s)	See 37 CFR 1.85(a). is objected to. See 37 CFR 1.121(d).	
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bure * See the attached detailed Office action for a list	nts have been received. nts have been received in Appliority documents have been recall au (PCT Rule 17.2(a)).	lication No ceived in this National Stage	
Attachment(s)			
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)/M	mary (PTO-413) lail Date mal Patent Application	

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DETAILED ACTION

Status of Claims

1) This action is in reply to the amendment filed on May 25, 2011.

2) Claims 1, 6 and 18 have been amended.

3) Claims 8, 16 and 17 have been canceled.

4) Claims 1-7, 9-15 and 18-19 are currently pending and have been examined.

Claim Rejections - 35 USC § 101

5) 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 6) Based upon consideration of all of the relevant factors with respect to the claim <u>as a whole</u>, claim 1 is held to claim an abstract idea, and is therefore rejected as ineligible subject matter under 35 U.S.C. 101. The following is the rationale for this finding:
- 7) Firstly, no transformation is recited. The behaviors are merely data points that are either clustered or not. The data points do not undergo a change in state or thing.
- 8) Secondly, the recitation of a machine is only tangentially related to the performance of the steps. The executing of a detection process that analyzes a record with a processor to detect *possible deceptive behaviors* is understood as basically a data gathering step for the heart of the invention, which is drawn to the review (by a human user) of the detected behaviors to determine the presence of a cluster. To support this, the Examiner notes that the record is annotated (by the human user) to indicate the presence of the cluster, not to indicate a possible deceptive behavior as detected by the processor. The specification at page 19 states:
 - In the embodiment depicted FIG. 4 a detection process **600** is provided. The optional detection process **600** may be a software process operating on a conventional computer system that is capable of reviewing the record stored in database **540** and determining the occurrence of possible deceptive behavior within the recorded disclosure. To this end, the

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detection process 600 may include a software process capable of analyzing the speech or text of a corporate disclosure and identifying within the speech or text certain trigger words that are indicative of deceptive behavior.

- 9) The specification provides very little detail regarding the detection process performed by the processor. Rather, the majority of the invention is carried out by a human reviewer who must identify a stimulus and determine whether a cluster of behaviors (both verbal and non-verbal) exist that could indicate a likelihood of deception. The summary of verbal behavior identified as deceptive behaviors from page 2-3 of the specification include:
 - (i) failure to respond substantively to a stimulus (i.e. a question) during an interview;
 - (ii) repeating all or a portion of the question;
 - 3. (iii) giving an unnecessarily and overly specific answer to a question;
 - 4 (iv) expressing an inappropriate level of concern for an issue or topic raised by a stimulus;
 - (v) responding to a stimulus by making verbal attacks directed at the interviewer or another party;
 - 6. (vi) using qualifying language in response to the stimulus;
 - 7 (vii) invoking religion or other moral authorities to emphasize the purported integrity of an answer:
 - 8 (viii) failure to understand simple or well-known terms, concepts or questions;
 - 9. (ix) using phrases intended to indicate an incomplete or uncertain memory;
 - (x) being excessively courteous;
 - (x) complaining about the subject matter of the stimulus, or the interview in general;
 - (2) (xii) stating that they are rejuctant or unwilling to answer a question;
 - 13 (xiii) asking inappropriate or out of place questions in response to a stimulus; or
 - (xiv) responding to the stimulus with a protest, rather than with the responsive factual information requested

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10) Of the above listed verbal behaviors, items 5, 6 and 7 might be understood to be able to be detected using a processor that identifies trigger words. As the remaining verbal behaviors and the numerous non-verbal behaviors listed on pages 3-4 would require a human to detection them, the Examiner maintains that the detection process performed with a processor is merely an insignificant data gathering step for the human reviewer to perform the reviewing to identify a cluster of behaviors.

- 11) Further, Applicant argues patentability based upon the clustering methodology, therefore, the Applicant asserts that the clustering perform by the human user is the heart of the invention which is not tied to a particular machine.
- 12) Dependent claims 2-5, 7-12 and 18 when analyzed as a whole are held to be ineligible subject matter and are rejected under 35 U.S.C. 101 because the additional recited limitations fail to establish that the claims are not directed to an abstract idea. The additional limitations merely involve further cluster identification activities that are performed by the human user.

Previous Claim Rejections - 35 USC § 112

13) The Examiner thanks the Applicant for the amendments to claims 1, 6 and 18. The previous rejection is overcome and is withdrawn.

Claim Rejections - 35 USC § 103

14) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15) Claims 1-7, 9-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Al Bandar et al. (US Pub. No. 2004/0181145, hereinafter referred to as "Al Bandar") in view of

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Greenfield ("It's Illegal to Lie to Stockholders, but Not to Employees; [Metro Final Edition]", The Sacramento Bee. Sacramento, Calif.: Jul 6, 1998, pg. B.5).

16) Claims 1 and 12: Al Bandar discloses

Receiving a record of a disclosure; (P[0112] and P[0114])

- Executing a detection process that analyzes the record with a processor to detect a plurality
 of possible deceptive behaviors; (P[0022-0026]: analysis is performed automatically using a
 machine; P[0029]: channels are coded by behavior; P[0034]: channels are analyzed to
 determine deceptive behavior);
- Reviewing the record to determine the presence of a cluster of deceptive behaviors responsive to a stimulus; (P[0022-0026]: analysis is performed automatically using a machine; P[0029]: channels are coded by behavior; P[0034]: channels are analyzed to determine deceptive behavior; P[0067]: channel data is grouped (i.e., a cluster is determined) to make a decision about behavioral states.
- Wherein reviewing comprises identifying:
 - a. Clusters that include data (behaviors) that begins during a stimulus time interval and a predetermined time after stimulus termination. (P[0011]: channel data is grouped into fixed time periods that coincide with some event (i.e., responsive to a stimulus) and [P[0064]: data collated over fixed (i.e., predetermined) length of time)
 - b. behaviors that begin after the time interval and before the end of a prior deceptive behavior (P[0095]: statistics are calculated for fixed or variable time periods, for example, the time that relates to the specific answer to a question; P[0098-0099]: statistics from each channel are concatenated (i.e., linked in a series) to produce a vector (thus the vector is a cluster of behaviors that are captured and analyzed by the individual channels). "Because some behaviors may have a slow pattern and other are fleeting (such as microexpressions), it may be advantageous to collate the channel statistics from one or more time

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periods to create the vector. Each channel may have its own optimum measurement time period." P[0134]: statistics are collected for the whole of each answer; P[0137]: channel statistics were accumulated over the length of the answer and the answer was classified as either the truth or a lie; Thus, through the collation (bringing together and comparing) of the various channel stats, each with its own time measurement period, a cluster will contain behaviors that began after one time period ended but will overlap with another behavior. As statistics are collected for the time it takes to answer a question, the cluster that relates to the answer will include behavior that begun early in the answer and would be clustered during a fixed length of time and behaviors that occurred later during the answer (such as the person's complete verbal response) and thus produce a vector (cluster) that is produced by collecting data over a variable length of time that corresponds to the answer.).

c. Excluding deceptive behaviors that begin after the time interval and are not concurrent with prior behaviors. (Note: This limitation is understood to comprise any behavior that occurs after a first stimulus (such as a behavior that occurs in reaction to a later, second stimulus). P[0139]: vectors between answers are ignored; thus behaviors that occurred during gaps between answers are excluded from the cluster that relates to preceding answer. Because the system recognizes gaps, any behavior that begins after a first stimulus, but is not concurrent any behaviors attributable to the first stimulus, will not be included. For example, the behaviors that result from a second stimulus (i.e., a second question after the first question) will not be included in the cluster of behaviors for the first stimulus. P[0140]: one answer is truthful, another is deceptive, and thus each answer has its own cluster of behaviors that indicate truthfulness or deception.)

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Annotating the record to indicate the presence of a cluster including a reference to each type
of deceptive behavior, wherein the types of behaviors are retrieved from a database;
(P[0013]: frames are coded manually and P[0009]: coding comprises a record of whether a
particular behavior took place and opinion of the judge; P[0011]: patterns are detected that
indicate behavioral state; P[0024-0025]: automatic coding, therefore the database retrieval is
inherent)

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- 17) The Examiner notes that the content of the annotation is **nonfunctional descriptive data** and is not functionally involved in the steps recited. **The annotation of the record would be performed regardless of the descriptive content of the annotation.** Thus, this descriptive data will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).
- 18) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included annotations that includes the type of behavior, the numbers of behaviors within a cluster of behavior, the stimulus, subject of the stimulus and the reply because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of annotation data does not patentably distinguish the claimed invention.
- 19) Al Bandar does not disclose a corporate disclosure.
- **20)** Greenfield, however, discloses that federal law requires honesty with regard to communications with shareholders (pg. 1; para. 4) and if the corporation misrepresents itself, investors are entitled to sue (pg. 2; para. 5).
- 21) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included corporate communications, as disclosed by Greenfield in the system disclosed by Al Bandar, for the motivation of providing a method of determining truthfulness of corporate executives during the course of a law suit.
- 22) The Examiner notes that the type and content of disclosure is **nonfunctional descriptive data** and are not functionally involved in the steps recited. The detection of deception behavior would be

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performed regardless of the nature of the disclosure analyzed. Thus, this descriptive data will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

- 23) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included corporate disclosures because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of a type of data analyzed does not patentably distinguish the claimed invention.
- **24) Claims 2-5:** Al Bandar discloses questions posed and subdividing the disclosure into time periods (P[0095]) and reviewing the record for pre-determined non-verbal responses (P[0057]).

25) Claims 6 and 13: Al Bandar discloses

- A processor for analyzing a record to detect a plurality of possible deceptive behaviors
 (P[0022-0026]: analysis is performed automatically using a machine; P[0029]: channels are
 coded by behavior; P[0034]: channels are analyzed to determine deceptive behavior;
 P[0067]: channel data is grouped (i.e., a cluster is determined) to make a decision about
 behavioral states.)
- Wherein analyzing the record comprises identifying trigger words indicative of deceptive behavior; (P[0033]: measurements of verbal behaviour is made; P[0104]: verbal behaviour is subjected to intelligent analysis, including trigger words such as "not" and "never".)
- A database that includes a list of deceptive behaviors; (P[0024]: observations are coded into
 a plurality of channels; in order to code behaviors, a list of the behavior and the
 corresponding code is required.)
- An annotator for allowing a reviewer to indicate the presence of a cluster wherein the types of behaviors are retrieved from a database; (P[0013]: frames are coded manually and P[0009]: coding comprises a record of whether a particular behavior took place and opinion of the judge; P[0011]: patterns are detected that indicate behavioral state; P[0024-0025]: automatic coding, therefore the database retrieval is inherent).

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 A report generator for producing a report; (P[0101]: information is outputted relating to the psychology of the subject.)

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- 26) NOTE: The manner in which the system (i.e., the processor, database, annotator and report generator) are to be utilized (i.e., to analyze a corporate disclosure; to allow a reviewer to indicate first or second clusters, references of clusters, numbers of deceptive behaviors, the stimulus, subject of the stimulus and reply and to produce a report that indicates a likelihood) carry no patentable weight in an apparatus claim. Apparatus claims should cover what a device is or structures or structural elements, not what a device does. See Hewlett-Packard Co. vs. Bausch & Lomb Inc., 909 F 2.d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).
- 27) The Examiner notes that the content of the annotation is **nonfunctional descriptive data** and is not functionally involved in the steps recited. **The annotation of the record would be performed regardless of the descriptive content of the annotation.** Thus, this descriptive data will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).
- 28) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included annotations that includes the type of behavior, the numbers of behaviors within a cluster of behavior, the stimulus, subject of the stimulus and the reply because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of annotation data does not patentably distinguish the claimed invention.
- **29)** Al Bandar does not disclose a corporate disclosure.
- **30)** Greenfield, however, discloses that federal law requires honesty with regard to communications with shareholders (pg. 1; para. 4) and if the corporation misrepresents itself, investors are entitled to sue (pg. 2; para. 5).
- 31) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included corporate communications, as disclosed by Greenfield in the system disclosed

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by Al Bandar, for the motivation of providing a method of determining truthfulness of corporate executives during the course of a law suit.

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- 32) The Examiner notes that the type and content of disclosure is **nonfunctional descriptive data** and are not functionally involved in the steps recited. **The detection of deception behavior would be performed regardless of the nature of the disclosure analyzed.** Thus, this descriptive data will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).
- **33)** Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included corporate disclosures because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of a type of data analyzed does not patentably distinguish the claimed invention.
- **34) Claim 7:** Al Bandar discloses a pre-determined period of time (P[0064]) and collecting data the time that relates to the specific answer to a question (i.e., time after the stimulus ends) (P[0095]) but does not disclose 5 seconds.
- **35)** Though Al Bandar does not disclose approximately 5 seconds, this difference is only found in the **nonfunctional descriptive data** and is not functionally involved in the steps recited. **The review of the behavior (i.e., data collection) would be performed regardless of length of the time period.**Thus, this descriptive data will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).
- **36)** Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included five seconds because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of the length of the time interval does not patentably distinguish the claimed invention.

- **37) Claims 9 and 10:** Al Bandar discloses clusters of the same behaviors (P[0087]: group data for one channel (i.e., one behavior) and different behaviors (P[0098]: a vector is produced that represents all channel statistics).
- **38) Claims 14 and 15:** Al Bandar discloses questions posed and answers (i.e. statement made). (P[0095]).
- 39) Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Al Bandar et al. (US Pub. No. 2004/0181145, hereinafter referred to as "Al Bandar") in view of Greenfield ("It's Illegal to Lie to Stockholders, but Not to Employees; [Metro Final Edition]", The Sacramento Bee. Sacramento, Calif.: Jul 6, 1998, pg. B.5) in view of Johnson, JR. (US Pub. No. 2002/0062089, hereinafter referred to as "Johnson").
- **40) Claim 11:** Al Bandar does not disclose indicating a likelihood of deception based on the number of deceptive behaviors in a cluster.
- **41)** Johnson, however, discloses computing a ranges of scores based on the number of markers for indicating probable deception, probable truth and indeterminate. (P[0092]).
- **42)** Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included indicating a likelihood of deception based on the number of behaviors, as disclosed by Johnson, in the system of Al Bandar for the motivation of correlating the behavior data to a summary indicator of deception to allow quick identification of a subject's responses with regard to overall deception.
- 43) Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Al Bandar et al. (US Pub. No. 2004/0181145, hereinafter referred to as "Al Bandar") in view of Greenfield ("It's Illegal to Lie to Stockholders, but Not to Employees; [Metro Final Edition]", The Sacramento Bee. Sacramento, Calif.: Jul 6, 1998, pg. B.5) in view of Gevins et al. (2003/0013981, hereinafter referred to as "Gevins").

44) Claims 18 and 19: Al Bandar discloses obtaining a second disclosure (P[0110-0111]). It is obvious that the reviewing and annotating, as discussed above with respect to claims 1 and 6 would be performed for the second disclosure. Al Bandar does not explicitly disclose performing a comparison of the two records.

- **45)** Gevins, however, at P[0015-0016] discloses using an individual's own prior baseline data to measure subtle changes in the individuals functioning over time.
- **46)** Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included comparing two records of an individual to identify behaviors as disclosed by Gevins, in the system of Al Bandar for the motivation of measuring subtle changes with respect to the individual over time. (Gevins; P[0015]).

Response to Arguments

Applicant's arguments filed My 25, 2011 have been fully considered but they are not persuasive. Applicant argues that Al Bandar does not teach the following. The Examiner maintains that the rejections are proper and indicates the portions of Al Bandar which cite the limitations:

- a. Clusters that include data (behaviors) that begins during a stimulus time interval and a predetermined time after stimulus termination. (P[0011]: channel data is grouped into fixed time periods that coincide with some event (i.e., responsive to a stimulus) and [P[0064]: data collated over fixed (i.e., predetermined) length of time)
- b. Behaviors that begin after the time interval and before the end of a prior deceptive behavior: Applicant states that the Examiner is citing incompatible element by relying on both a "time period in question" and "optimum measurement time periods". The Examiner notes that the "optimum measurement time periods" relate to *each* channel. As a channel is the equivalent of monitoring a behavior, each behavior, in response to the stimulus, will develop based on the type of behavior (P[0099]: Al Bandar: some behaviours are fleeting and some have a slow pattern, thus multiple channels are collated.) The time period in question (such as the time to answer a question), all

channel statistics, which include channels (i.e., behaviors) that occur with varying length (i.e., the microexpressions vs. the slow pattern) will result in overlapping behaviors during the time period in question.

c. Excluding deceptive behaviors that begin after the time interval and are not concurrent with prior behaviors. (This limitation is understood to comprise any behavior that occurs after a first stimulus (such as a behavior that occurs in reaction to a later, second stimulus). P[0139]: vectors between answers are ignored; thus behaviors that occurred during gaps between answers are excluded from the cluster that relates to preceding answer. Because the system recognizes gaps, any behavior that begins after a first stimulus, but is not concurrent any behaviors attributable to the first stimulus, will not be included. For example, the behaviors that result from a second stimulus (i.e., a second question after the first question) will not be included in the cluster of behaviors for the first stimulus. P[0140]: one answer is truthful, another is deceptive, and thus each answer has its own cluster of behaviors that indicate truthfulness or deception.)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should

be directed to GABRIELLE MCCORMICK whose telephone number is (571)270-1828. The examiner can

normally be reached on Monday - Thursday (5:30 - 4:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Jamisue Plucinski can be reached on (571) 272-6811. The fax phone number for the organization where

this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

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1000.

/G. M./

Examiner, Art Unit 3629

/Jonathan Ouellette/

Primary Examiner, Art Unit 3629